

Appl. No. 09/701,751
Art Unit 1751

Docket H 3491 PCT/US

Applicants have never alleged that the art does not teach naturally occurring α -amylase derived from *B. amyloliquefaciens*. Indeed, applicants specifically point out in their earlier arguments the very disclosure now relied on by the Examiner ("... a native enzyme produced by *B. amyloliquefaciens* is disclosed at page 12, line 11 . . ."). Nor do applicants deny that naturally-occurring α -amylases derived from *B. amyloliquefaciens* were known in the art. So applicants have not argued, as the Examiner now alleges, that the claimed enzyme is not taught in the art.

What applicants have argued is that the art does not teach to select and combine the claimed naturally-occurring α -amylase from *B. amyloliquefaciens* with the recited peroxidic oxidizing agent, which was also known to the art. The Examiner has proven, and applicants do not dispute, that these two elements are found separately in the art, but that fact is insufficient as a matter of law to establish *prima facie* obviousness.

Most inventions are combinations, and mostly of old elements. "If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue." In re Rouffet, 47 U.S.P.Q. 1453, 1457 (Fed. Cir. 1998). Therefore P.T.O. must produce evidence from the art that would lead one of skill to select and combine the claimed elements. Even if the art could be combined as claimed, and one of skill would be capable of doing it, there is no *prima facie* obviousness absent evidence of

Appl. No. 09/701,751
Art Unit 1751

Docket H 3491 PCT/US

motivation. M.P.E.P. § 2143.01. Where the rejection is based on a single reference, "there must be a showing of a suggestion or motivation to modify the teachings of that reference." In re Kotzab, 55 U.S.P.Q. 2d 1313, 1316-17 (Fed. Cir. 2000). "[T]he examiner must show reasons that the skilled artisan, confronted with the same problems and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." Rouffet, 47 U.S.P.Q. 2d at 1458.

The invention first requires selecting the naturally occurring α -amylase derived from *Bacillus amyloliquefaciens* from among the hundreds of α -amylases of various natural and synthetic origins disclosed in the art. The amylases described in Herbots detergent include both α - and β -amylases. Herbots is indifferent to the origin of these amylases. At page 11, lines 13-24, Herbots discloses that the enzymes can be of animal or plant origin, purified or non-purified, mutant or native. No particular attention is drawn to the native enzyme produced by *B. amyloliquefaciens* disclosed at page 12, line 11, and Herbots' reinforces this indifference by not specifying the exact enzyme used in the examples. Nor do Herbots' claims lead one to any specific amylase, out of the hundreds disclosed. At their most specific, the claims call for any amylase of fungal or bacterial origin within the class EC 3.2.1.1, which encompasses literally hundreds of α -amylases.

On the other hand, applicants very specifically call for a naturally occurring α -amylase derived from *Bacillus*

Appl. No. 09/701,751
Art Unit 1751

Docket H 3491 PCT/US

amyloliquefaciens. Even in its most preferred embodiments, Herbots does not distinguish between BAN® and the other α -amylases not recited by applicants' claims. One of ordinary skill in the art would have little reason to select this specific amylase from the myriad amylases disclosed in Herbots to combine with the recited peroxidic oxidizing agent.

The Board of Appeals in Ex parte Wittpenn, 16 U.S.P.Q. 2d 1730 (Bd. Pat. App. & Int. 1990) reversed a rejection under very similar circumstances. The single prior art reference taught that its surfactant composition could include a nonionic surfactant that was required by the rejected claims, though no particular preference was expressed for that nonionic surfactant anywhere in the reference. The Board concluded that since no disclosure within the reference "would have led the routineer to make the critical selections to arrive at the claimed surfactant composition, we find that no prima facie case of obviousness has been established and that the rejection before us cannot be sustained." Id. at 1731. Because Herbots is equally wanting in disclosing any preference for the claimed enzyme, rejection of the claims for obviousness over this reference should not be maintained.

Moreover, any *prima facie* obviousness of the claims is overcome by the comparative testing presented in applicants' examples 1 and 2. In the January 8 action, applicants' secondary evidence of nonobviousness is not addressed at all. When presented, applicants' evidence of nonobviousness

Appl. No. 09/701,751
Art Unit 1751

Docket H 3491 PCT/US

must be considered, and it was error for the Examiner not to address it before issuing a final office action. M.P.E.P. § 2144.08.II.B. Applicants therefore submit that the finality of the pending action should be withdrawn, and this paper should be entered as a matter of right.

As explained previously, detergent compositions according to the invention comprising a naturally occurring α -amylase derived from *Bacillus amyloliquefaciens* were compared to detergent compositions comprising several well-known amylases of natural and synthetic (genetically modified) origin. Indeed, applicants tested the inventive compositions against compositions comprising some of the very enzymes that Herbots in its examples saw no reason to specify, including Termamyl® 60T, a naturally occurring amylase derived from *Bacillus lentus*, Duramyl® and PurafectOxAm®, genetically modified amylases, and Fungamyl®, an amylase of fungal origin. In applicants' tests, detergent compositions comprising the naturally occurring α -amylase derived from *B. amyloliquefaciens* clearly outperformed otherwise identical detergent compositions containing these other α -amylases. Thus, any *prima facie* obviousness that could be derived from Herbots is rebutted by applicants' evidence of unexpected and superior cleaning performance according to the invention.

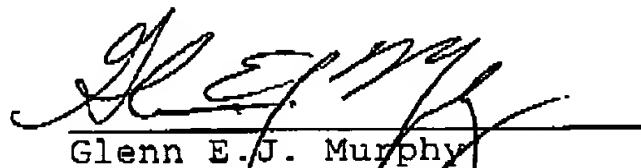
Appl. No. 09/701,751
Art Unit 1751

Docket H 3491 PCT/US

CONCLUSION

For the reasons above, applicants respectfully submit that the claims are in condition for allowance. Should any fees be due for entry and consideration of this Amendment that have not been accounted for, the Commissioner is authorized to charge them to Deposit Account No. 01-1250.

Respectfully submitted,


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